

DEPARTMENT OF COMMERCE

U. S. Weather Bureau

F. W. Billingsley, Chief

MONTHLY WEATHER REVIEW

FEBRUARY 1943

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CORRECTION

Moscow Weather Review, January 1943, vol. 71,
page 12, the main heading for this section should be
"JANUARY 1943," not **"DECEMBER 1942."**

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METEOROLOGICAL AND CLIMATOLOGICAL DATA FOR FEBRUARY 1943

[Climate and Crop Weather Division, J. B. KINCER, in charge]

AEROLOGICAL OBSERVATIONS

NOTICE.—Effective with the December 1942 issue, the publication of table 1 (RAOB summaries) was discontinued indefinitely.—
EDITOR.

TABLE 2.—Free-air resultant winds based on pilot-balloon observations made near 5 p. m. (75th meridian time) during February 1943. Directions given in degrees from north ($N=360^\circ$, $E=90^\circ$, $S=180^\circ$, $W=270^\circ$). Velocities in meters per second

TABLE 3.—*Maximum free-air wind velocities (m. p. s.), for different sections of the United States based on pilot-balloon observations during February 1943*

Section	Surface to 2,500 meters (m. s. l.)					Between 2,500 and 5,000 meters (m. s. l.)					Above 5,000 meters (m. s. l.)				
	Maximum velocity	Direction	Altitude (m) m. s. l.	Date	Station	Maximum velocity	Direction	Altitude (m) m. s. l.	Date	Station	Maximum velocity	Direction	Altitude (m) m. s. l.	Date	Station
Northeast ¹	58.2	w.	640	11	Nantucket, Mass.	54.4	nw.	3,910	8	Phillipsburg, Pa.	74.2	nw.	9,330	10	Caribou, Me.
East-Central ²	44.0	ssw.	2,130	10	Richmond, Va.	50.0	w.	3,450	14	Raleigh, N. C.	65.2	w.	7,430	25	Nashville, Tenn.
Southeast ³	44.0	wnw.	2,500	1	Washington, D. C.	58.0	w.	4,960	14	Charleston, S. C.	66.0	w.	11,900	7	Miami, Fla.
North-central ⁴	41.3	nw.	1,050	14	Spartanburg, S. C.	52.6	nnw.	5,000	13	St. Paul, Minn.	60.0	n.	7,600	17	S. Ste. Marie, Mich.
Central ⁵	41.2	nnw.	2,470	12	Williston, N. Dak.	46.4	nnw.	4,500	26	St. Louis, Mo.	61.6	w.	8,880	24	Wichita, Kan.
South-Central ⁶	41.6	wws.	1,420	27	Fort Wayne, Ind.	55.3	nw.	5,000	6	Waco, Tex.	80.0	wws.	12,280	3	Abilene, Tex.
Northwest ⁷	42.6	wnw.	2,290	8	Oklahoma City, Okla.	46.8	wnw.	4,830	11	Spokane, Wash.	62.0	nnw.	7,690	5	Great Falls, Mont.
West-Central ⁸	45.5	wws.	2,380	6	Billings, Mont.	52.0	nnw.	5,000	9	Reno, Nev.	74.8	n.	11,050	3	Reno, Nev.
Southwest ⁹	33.6	wnw.	2,290	11	Cheyenne, Wyo.	58.8	sse.	4,170	20	Sandberg, Calif.	69.6	wws.	11,200	2	Tucson, Ariz.

¹ Maine, Vermont, New Hampshire, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Pennsylvania, and northern Ohio.

² Delaware, Maryland, Virginia, West Virginia, southern Ohio, Kentucky, eastern Tennessee, and North Carolina.

³ South Carolina, Georgia, Florida, and Alabama.

⁴ Michigan, Wisconsin, Minnesota, North Dakota, and South Dakota.

⁵ Indiana, Illinois, Iowa, Nebraska, Kansas, and Missouri.

⁶ Mississippi, Arkansas, Louisiana, Oklahoma, Texas (except El Paso), and western Tennessee.

⁷ Montana, Idaho, Washington, and Oregon.

⁸ Wyoming, Colorado, Utah, northern Nevada and northern California.

⁹ Southern California, southern Nevada, Arizona, New Mexico, and extreme west Texas.

RIVER STAGES AND FLOODS

By C. R. JORDAN

Precipitation during February 1943 was below normal in most sections of the United States. Moderate rains occurred over the interior of the Southeast during the first week of February. There was also moderately heavy precipitation over the northern Pacific coastal area during the early part of the month.

Temperatures during February averaged well above normal over the entire country with the exception of the Florida Peninsula and a small area in southeastern Arizona. The greatest departure from normal was in the northern Great Plains States where the temperature for the month averaged from 8° to 10° above normal. Despite the high average temperatures for the month, the coldest weather of the winter was experienced in the Northeastern States during the middle of the month and a hard freeze was felt as far south as the Gulf coast. Minimum temperatures of 30° or more below zero were reported in New England with temperatures as low as 10° below freezing extending into northern Florida.

Most of the flooding during February resulted from melting snow or ice jams that occurred in several streams when the unseasonably warm weather of early February and again during the latter part of the month caused the ice in many streams to move out early. Fortunately, precipitation during these periods was light. Moderate rains over the Southeast during the first half of February produced some light flooding in that section, but little damage was reported. Moderate floods also occurred in the Columbia River Basin.

St. Lawrence drainage.—The snow cover in the Upper Lakes region was reduced somewhat by the warm weather during the latter part of February. Snow depths at the end of the month ranged from a trace in southern Michigan to 3 feet or more in northern Michigan and Wisconsin. Water content of the snow cover in the portion of the Adirondack Mountain region of New York tributary to the St. Lawrence River averaged about 8 inches.

The Flint River at Columbiaville, Mich., swollen by water from melting snow, rose slightly above flood stage on February 25, when an ice jam formed below the town but no damage resulted.

Atlantic slope drainage.—The snow cover in New England was reduced considerably by the warm weather of February 19–25, but a heavy cover was still present at the end of the month in Vermont and New Hampshire and in the mountains of New York. Maximum depths of more than 3 feet in Maine and 4 feet in some sections of New York were reported. Only a few stations in the mountains of Pennsylvania reported over 6 inches of snow. Ice in the rivers ranged from 10 inches at Hartford, Conn., to about 3 feet in northern Maine. No ice was reported in the rivers of eastern Pennsylvania and New York at the close of the month with the exception of shore ice in the Hudson River at Albany, N. Y.

The Connecticut River was slightly above flood stage at White River Junction, Vt., on February 25, as a result of ice released in the White River overrunning the ice in the Connecticut River at their confluence.

An ice jam formed in the Mohawk River just below Tribes Hill, N. Y., on the morning of February 24. The river rose rapidly to a stage of 24.8 feet (1.8 feet above flood stage) at noon, at which time the gorge broke and the water receded rapidly. There was also light flooding in the vicinity of Schenectady, N. Y., from an ice jam that formed below that point. Damage was negligible.

The unusually warm weather from February 19–24, with temperatures as high as 63° at Binghamton, N. Y., produced relatively heavy run-off from snow melt in the headwaters of the Susquehanna River in New York. The flow was not augmented by precipitation of consequence and the run-off from melting snow was not sufficient to produce serious flooding. Flood stages were exceeded slightly at Sherburne, Greene, and Binghamton, N. Y., on the Chenango River and at Oneonta, Bainbridge, and Vestal, N. Y., on the Susquehanna. Some basements were flooded in low places in the area of Vestal and Westover, N. Y., but otherwise little damage resulted.

Moderate rains during the first week of February, averaging from 0.5 inch to 2.5 inches in the southeastern section, produced light to moderate flooding in most streams along the Atlantic coast from Virginia southward.

The Roanoke River rose to 7 feet above flood stage at Weldon, N. C., on the 9th and nearly 2 feet above flood stage at Williamston, N. C., on the 13th. Damage was confined mostly to prospective crops and to the interruption of business.

The Neuse River exceeded flood stage at a few points and the Cape Fear River crested at a stage of 26.0 feet at Elizabethtown, N. C., on February 8, but did not reach flood stage at stations farther downstream.

Rains averaging about an inch over the Yadkin and upper Pee Dee River Basins on the 6th produced moderate rises in these streams with a crest of 32.3 feet at Cheraw, S. C., on the 7th. No damage was reported.

Rainfall averaged from 2 to 2.5 inches over the Saluda, Broad, and Catawba River Basins on the 6th and caused the Saluda and Broad Rivers to exceed flood stages slightly at a few points. Overflow was slight and no damage was reported.

The Savannah River at Butler Creek, Ga., exceeded flood stage on February 7-8, as a result of precipitation averaging from 1 to 1.5 inches over the basin on the 5th and 6th. Damage was light, being confined mostly to suspension of business.

Moderate rises continued in the Ocmulgee, Oconee, and Altamaha Rivers during the early part of February as a result of precipitation that occurred near the end of January.

East Gulf of Mexico drainage.—The Apalachicola River continued above flood stage at Blountstown, Fla., until the middle of February due to a very slow recession from a crest of 21.9 feet that occurred on January 24. High stages were prolonged by further rains on January 28, and again on February 4 and 5. The only loss from the high stages was the suspension of small industries in the vicinity of Blountstown.

Moderate rains, averaging from 1.5 to 2 inches over the middle Tombigbee and Pearl River Basins on February 4 and 5 caused slight overflows in those streams. The crest in the Tombigbee reached 38.2 feet on February 10 at Lock No. 3; no damage resulted. Overflow in Bogue Chitto River at Franklinton, La., and the Pearl River at Pearl River, La., resulted in little or no loss.

Mississippi system.—Two periods of unusually warm weather during February that resulted in considerable run-off from the heavy snow cover over southwestern Wisconsin raised the Rock River at Moline, Ill., above flood stage from February 8 to 18, and again from February 21 to March 4. The highest stage reached was 11.4 feet on February 25, and no damage of consequence was reported.

Moderate flooding occurred in the Skunk, Des Moines, Illinois, Big Sioux, Floyd, Boyer, Elkhorn, Little Missouri, Heart, Yellowstone, Grand, and Missouri Rivers and at Louisiana and Hannibal, Mo., on the Mississippi River. The flooding resulted mainly from the formation of ice jams in the streams and the overflows, being local, caused little damage in most cases.

The unusually warm period in the Dakota, and Montana from February 17 to 23, melted a great deal of snow in the low-lying areas and swelled the Yellowstone and Little Missouri Rivers in some places to record stages. The peak on the Yellowstone River at Sidney, Mont., exceeded the usual high water flow for that station in June and the Little Missouri at Marmarth, N. Dak., was the highest that has ever been observed. Ice jams of large proportions occurred on both streams. It is estimated that some \$20,000 worth of property, mostly livestock and other farm property, was lost as a result of the rapid rise in the Little Missouri. A farm home was destroyed and 800 head of sheep lost in Richland County, Mont., when flood waters inundated several farms along the Yellowstone River as a result of water backing up from its junction with the Missouri River, following the breaking of ice

jams between Billings and Miles City, Mont. Loss in this area was estimated at \$9,300.

Ice jams occurred on most of the streams in Iowa and some lowlands were inundated in the lower Des Moines River Basin.

Pacific slope drainage.—The Sacramento River at Knights Landing, Calif., remained slightly above flood stage on February 1. This was a continuation of the flood of January 1943.

Rains during the first part of February were followed by moderate flooding of the streams in western Oregon. No damage was reported.

FLOOD-STAGE REPORT FOR FEBRUARY 1943

[All stages in February unless otherwise specified]

River and station	Flood stage	Above flood stages—dates		Crest		
		From—	To—	Stage	Date	
ST. LAWRENCE DRAINAGE						
<i>Lake Huron</i>						
Flint: Columbiaville, Mich.	Feet 10	23	27	Feet 10.6	25	
ATLANTIC SLOPE DRAINAGE						
Connecticut: White River Junction, Vt.	18	25	25	18.4	25	
Mohawk: Tribes Hill, N. Y.	23	24	24	24.8	24	
Chenango:						
Sherburne, N. Y.	8	24	25	8.7	24	
Greene, N. Y.	8	24	25	10.0	25	
Binghamton, N. Y.	16	25	25	16.2	25	
Susquehanna:						
Oneonta, N. Y.	12	23	27	16.0	24-25	
Bainbridge, N. Y.	12	25	25	13.7	25	
Vestal, N. Y.	14	24	26	17.7	25	
James: Columbia, Va.	10	2	12	16.8	7	
Roanoke:						
Randolph, Va.	21	6	8	25.0	6	
Weldon, N. C.	31	6	10	38.3	9	
Williamston, N. C.	10	Jan. 31	23	11.9	13	
Neuse:						
Neuse, N. C.	14	7	9	14.9	8-9	
Smithfield, N. C.	13	Jan. 29	2	15.0	{ Jan. 29	
	13	7	11	15.0	{ Feb. 1	
	14	{ 1	5	15.0	9-10	
Goldsboro, N. C.	14	{ 10	14	15.0	13	
Kinston, N. C.	14	{ (1)	2	16.0	{ Jan. 27-	
	14	{ 5	8	14.3	Feb. 2,	
	15	{ 15	15	14.0	7	
Cape Fear: Lock No. 2, Elizabethtown, N. C.	20	{ Jan. 30	2	25.0	{ Jan. 31	
	7	{ 11	11	26.0	8	
Pee Dee:						
Cheraw, S. C.	30	7	8	32.3	7	
Mars Bluff Bridge, S. C.	17	(1)	16	{ 20.2	3	
	18	{ (1)	17	{ 19.8	11	
Poston, S. C.	18	{ (1)	17	{ 20.0	8	
	19	{ 19.8	19.8	15		
Saluda:						
Pelzer, S. C.	6	5	8	6.8	7	
Chappells, S. C.	13	5	7	16.3	6	
Broad: Blairs, S. C.	14	6	7	15.6	7	
Savannah: Butler Creek, Ga.	21	7	8	21.9	7	
Ogeechee: Dover, Ga.	7	(1)	15	{ 8.8	{ Jan. 25	
	8	{ 15	15	{ 7.5	{ 8-9	
Ocmulgee: Abbeville, Ga.	11	(1)	7	{ 16.1	{ Jan. 25	
Oconee: Mount Vernon, Ga.	16	4	6	{ 12.7	{ 4	
Altamaha:						
Charlotte, Ga.	12	(1)	18	{ 21.4	{ Jan. 29	
	10	{ Jan. 30	16	{ 17.0	{ 6	
				{ 12.7	{ 3	
EAST GULF OF MEXICO DRAINAGE						
Apalachicola: Blountstown, Fla.	15	(1)	16	17.2	10-11	
Tombigbee: Lock No. 3, Ala.	33	7	12	35.2	10	
Bogue Chitto: Franklinton, La.	11	6	8	12.4	7	
Pearl: Pearl River, La.	12	9	14	15.0	12	
MISSISSIPPI SYSTEM						
<i>Upper Mississippi River</i>						
Rock: Moline, Ill.	10	{ 8	18	10.7	12-18	
		{ 21	Mar. 4	11.3	25	
Skunk: Augusta, Iowa	15	{ 4	9	20.0	6	
		{ 12	13	16.2	12	
Des Moines:						
Eddyville, Iowa	15	{ 4	16	21.7	5	
		{ 20	27	18.0	27	
Tracy, Iowa	14	{ 5	8	15.8	6	

See footnotes at end of table.

FLOOD-STAGE REPORT FOR FEBRUARY 1943—Continued

River and station	Flood stage	Above flood stages—dates		Crest		
		From—	To—	Stage	Date	
MISSISSIPPI SYSTEM—continued						
Upper Mississippi Basin—Continued						
Illinois:						
Beardstown, Ill.	14	6	24	16.3	14	
Morris, Ill.	13	6	8	15.2	7	
Peru, Ill.	17	4	15	19.5	7	
Peoria, Ill.	18	11	12	18.1	12	
Havana, Ill.	14	8	22	17.1	18	
Mississippi:		Jan. 27	1	13.5	Jan. 28-30	
Hannibal, Mo.	13	4	7	14.2	5	
Louisiana, Mo.	12	7	17	14.2	18	
Missouri Basin		14	9	12.8	8	
Big Sioux: Akron, Iowa	12	22	24	15.3	24	
Floyd: James, Iowa	14	3	5	16.4	4	
Grand: Chillicothe, Mo.	18	22	23	17.9	22	
Missouri: Nebraska City, Nebr.	15	4	5	21.2	4	
Ohio Basin		6	6	15.6	6	
West Fork: Clarksburg, W. Va.	5	1	1	5.0	1	
West Fork White: Edwardsport, Ind.	12	5	7	13.2	6	

Footnotes at end of table.

FLOOD-STAGE REPORT FOR FEBRUARY 1943—Continued

River and station	Flood stage	Above flood stages—dates		Crest		
		From—	To—	Stage	Date	
MISSISSIPPI SYSTEM—continued						
Lower Mississippi Basin						
Wolf: Rossville, Tenn.	9			7	Feet 9.0	
PACIFIC SLOPE DRAINAGE						
Sacramento Basin						
Sacramento: Knights Landing, Calif.	30	Jan. 30		2	30.5	
Columbia Basin						
Long Tom: Monroe, Oreg.	10	(¹)		22	12.4	
Santiam: Jefferson, Oreg.	13	6		8	17.3	
Luckiamute: Suver, Oreg.	25	{	12	9	29.4	
Yamhill:				12	12	
Williamina, Oreg.	8			7	10.4	
Whiteson, Oreg.	38			8	41.4	
Willamette:						
Harrisburg, Oreg.	10			5	10.7	
Oregon City, Oreg.	12			10	13.0	

¹ Ice gorge below gage.² Continued from January.³ Fell slightly below flood stage on 2d.

MONTHLY WEATHER REVIEW

CLIMATOLOGICAL DATA

CONDENSED CLIMATOLOGICAL SUMMARY OF TEMPERATURE AND PRECIPITATION BY SECTIONS

[For description of charts, see REVIEW January 1943, p. 15]

In the following table are given for the various sections of the climatological service of the Weather Bureau the monthly average temperature and total rainfall; the stations reporting the highest and lowest temperatures, with dates of occurrence; the stations reporting the greatest and least total precipitation; and other data as indicated by the several headings.

The mean temperature for each section, the highest and lowest temperatures, the average precipitation, and the greatest and least monthly amounts are found by using all trustworthy records available.

The mean departures from normal temperatures and precipitation are based only on records from stations that have 10 or more years of observations. Of course, the number of such records is smaller than the total number of stations.

Section	Temperature								Precipitation							
	Section average		Departure from the normal		Monthly extremes				Section average		Departure from the normal		Greatest monthly		Least monthly	
	° F.	° F.	Station	Highest	Date	Station	Lowest	Date	Station	In.	In.	Station	Amount	Station	Amount	
Alabama.....	50.9	+2.0	Dothan.....	83	5	Valley Head.....	7	15	2.30	-2.91	Monte Sano.....	4.49	2 stations.....	.02		
Arizona.....	48.9	+3.0	Mohawk.....	93	18	Wallace Ranger Station.....	-9	10	.54	-.81	Groom Creek.....	3.09	7 stations.....	.00		
Arkansas.....	47.5	+2.9	Benton.....	83	9	2 stations.....	7	16	1.00	-2.36	Crossett.....	3.87	Clover Bend.....	.16		
California.....	49.4	+1.5	5 stations.....	91	13	Boca.....	-19	9	2.66	-1.90	Squirrel Inn No. 2.....	15.27	Blythe Airport.....	.00		
Colorado.....	32.0	+4.8	Cheyenne Wells.....	79	22	Taylor Park.....	-38	4	.65	-.34	Cumbres.....	3.30	Norwood.....	.00		
Florida.....	58.4	-2.0	Arcadia.....	90	20	Glen St. Mary.....	14	15	.80	-2.34	Apalachicola.....	2.70	Camp Blanding.....	.02		
Georgia.....	49.7	+1.2	2 stations.....	83	25	Clayton.....	5	15	1.79	-3.02	Dahlonega.....	4.24	Brunswick Airport.....	.45		
Idaho.....	29.3	+1.3	Kooskia.....	65	20	Island Park Dam.....	-25	10	1.48	-.27	Roland.....	6.42	Grand View.....	.09		
Illinois.....	33.9	+4.1	Sparta.....	75	19	2 stations.....	-9	14	1.04	-.88	Oiney.....	2.36	Waukegan.....	.49		
Indiana.....	33.6	+3.1	Tell City.....	70	23	3 stations.....	-10	15	1.47	-.94	La Forte.....	3.60	Monticello.....	.54		
Iowa.....	27.5	+5.1	Keokuk.....	71	9	Northwood.....	-20	14	.77	-.31	Le Claire.....	1.82	2 stations.....	.37		
Kansas.....	40.4	+7.3	2 stations.....	82	8	Goodland.....	4	9	.59	-.40	Chanute.....	1.59	Kismet (near).....	.04		
Kentucky.....	40.1	+3.1	do.....	73	23	Earlington.....	-5	16	1.81	-.55	Lynch (near).....	3.96	Murray.....	.70		
Louisiana.....	55.5	+1.8	Bastrop.....	84	23	Tallulah.....	19	15	2.55	-1.99	Lake Charles.....	7.72	Plain Dealing.....	.40		
Maryland-Delaware.	36.2	+3.0	Fort George G. Meade, Md.	75	23	2 stations.....	-15	16	2.01	-.98	Snow Hill, Md.....	3.92	Luke, Md.....	.45		
Michigan.....	22.8	+2.6	Monroe.....	62	23	Rosecommon.....	-39	15	1.76	+.06	Mancelona.....	3.92	Adrian.....	.40		
Minnesota.....	14.7	+2.1	Windom.....	59	21	Big Falls.....	-40	14	.78	+.03	Pigeon River Bridge.....	1.93	Winona.....	.04		
Mississippi.....	51.5	+2.2	2 stations.....	82	14	Water Valley.....	9	15	2.49	-2.34	Magnolia.....	6.46	Moorhead.....	.90		
Missouri.....	39.1	+5.0	Union.....	80	7	Goodland.....	-10	16	.94	-1.11	Caruthersville.....	2.16	Galena.....	.23		
Montana.....	26.2	+4.0	Hardin.....	69	20	Babb (near).....	-37	8	.57	-.19	Summit.....	3.70	5 stations.....	T		
Nebraska.....	35.1	+8.8	Benkelman.....	80	8	Gordon.....	-9	2	.37	-.33	Tekamah.....	1.20	8 stations.....	T		
Nevada.....	38.8	+4.8	2 stations.....	82	15	2 stations.....	-16	11	.83	-.24	Marquette Lake.....	7.20	Coaldale.....	.00		
New England.....	23.9	+1.2	Weston, Mass.....	65	23	East Barnet, Vt.....	-46	16	1.90	-.17	Nantucket, Mass.....	3.76	Bethlehem, N. H.....	1.03		
New Jersey.....	32.9	+2.3	2 stations.....	71	23	Charlotteburg.....	-25	16	2.01	-1.54	Toms River.....	3.46	Burlington.....	1.06		
New Mexico.....	41.2	+4.0	Deming.....	86	7	Selsor Ranch.....	-21	4	.19	-.52	Aspen Grove Ranch.....	1.46	48 stations.....	.00		
New York.....	24.6	+2.1	Dansville.....	65	23	Stillwater Reservoir.....	-47	16	2.23	-.45	Stillwater Reservoir.....	5.71	Penn Yan.....	.22		
North Carolina.....	44.1	+1.5	Scotland Neck.....	82	24	Mount Mitchell.....	-10	16	1.97	-.02	Nantahala.....	5.37	Rockingham.....	.57		
North Dakota.....	15.1	+5.4	Marmarth.....	62	21	Willow City.....	32	1	.50	+.03	Oakes.....	1.91	Hannah.....	.05		
Ohio.....	32.1	+2.7	Ironton.....	73	23	Medina (near).....	-13	15	1.68	-.91	Middletown.....	3.12	Ottawa.....	.72		
Oklahoma.....	47.0	+5.9	2 stations.....	85	9	Buffalo.....	7	16	.63	-.77	Flashman Tower.....	1.60	Goodwell.....	T		
Oregon.....	37.1	+1.8	Powers.....	81	13	Wickiup Dam.....	-14	1	2.05	-1.13	Valsetz.....	17.00	Gooseberry.....	.12		
Pennsylvania.....	29.9	+1.5	Phoenixville.....	75	24	2 stations.....	-27	15	1.71	-.11	Warren.....	3.33	Lawrenceville.....	.49		
South Carolina.....	48.8	+1.4	2 stations.....	82	23	Caesars Head.....	0	15	1.58	-2.60	Caesars Head.....	4.13	Charleston Airport.....	.56		
South Dakota.....	26.8	+7.6	Fairfax.....	78	19	2 stations.....	-23	14	.46	-.10	Andover.....	2.18	Gann Valley.....	.00		
Tennessee.....	43.2	+2.1	Tri-City Airport.....	79	23	Gatlinburg.....	-1	15	2.65	-.69	Dandridge.....	5.00	Memphis.....	.72		
Texas.....	54.8	+3.5	Laredo.....	95	23	2 stations.....	5	10	.51	-1.27	Columbus.....	3.70	34 stations.....	.00		
Utah.....	32.1	+2.2	St. George.....	73	19	Woodruff.....	-26	1	1.24	-.06	Timpanogoo Summit.....	6.62	Castle Dale.....	.00		
Virginia.....	39.5	+2.3	Saluda.....	79	11	Big Meadows.....	-8	15	1.85	-.19	Onley.....	4.01	Staunton.....	.48		
Washington.....	36.7	+2.4	3 stations.....	69	17	Stockdill Ranch.....	-10	9	3.12	-.72	Higley Peak.....	14.42	Rock Island.....	.03		
West Virginia.....	34.6	+1.3	Hinton.....	76	23	Kumbrabow State For-est.....	-13	16	1.89	-1.20	Kumbrabow State For-est.....	4.55	McNeill.....	.29		
Wisconsin.....	18.7	+1.6	Brule Island.....	58	19	Long Lake.....	-36	15	.57	-.61	Shawano.....	2.25	Hatfield.....	.17		
Wyoming.....	27.9	+5.7	Torrington.....	77	21	Jackson.....	-30	1	.54	-.23	Grassy Lake Dam.....	4.88	Shawnee.....	.		
Alaska [January].....	-4.1	-6.5	Biorika Island.....	55	31	Allakaket.....	-64	11	2.32	+.15	Little Port Walter.....	23.58	Hughes.....	.		
Hawaii.....	69.4	+.5	Kaanapali.....	88	17	Volcano Observatory.....	38	26	5.61	-1.86	Honomale Mauka.....	21.96	2 stations.....	.05		
Puerto Rico.....	73.5	+.8	Utuado.....	95	24	Guineo Reservoir.....	52	15	3.01	-.25	La Mina (El Yunque).....	8.74	Potala.....	.10		

¹ Other dates also.

CLIMATOLOGICAL DATA FOR WEATHER BUREAU STATIONS

District and station	Elevation of instruments		Pressure		Temperature of the air										Precipitation		Wind																
	Barometer above sea level	Thermometer above ground	Anemometer above ground	Station, reduced to mean of 24 hours	Sea level, reduced to mean of 24 hours	Departure from normal	Mean max. + mean min. + ₂	Maximum	Departure from normal	Date	Mean maximum	Minimum	Date	Mean minimum	Greatest daily range	Mean wet thermometer dew-point	Total	Departure from normal	Days with 0.01 inch or more	Average hourly velocity	Precipitation direction	Miles per hour	Direction	Clear days	Cloudy days	Average cloudiness, tenths	Total snowfall	Snow, sleet, and ice on ground at end of month	Number of days with thunderstorms				
	ft.	ft.	ft.	in.	in.	in.	° F.	° F.	° F.	° F.	° F.	° F.	° F.	° F.	%	in.	in.	miles	0-10 5, 6	in.	in.	partly cloudy days	Cloudy days	Total	snow	ice	on ground						
New England																																	
Eastport	75	67	85	29.76	-	-	24.4	+2.9	48	11	33	-19	16	16	27	-	18	74	3.50	-0.2	14	12.1	w. nw.	34	se.	14	11	5	12	5.8	27.2	3.0	0
Greenville, Maine	1,070	6	41	28.63	-	-	15.8	+2.5	48	23	27	-35	16	5	39	-	19	76	2.67	.0	12	-	s. nw.	33	s.	28	13	3	9	16	16.6	18.0	0
Portland, Maine ¹	103	5	36	29.75	-	-	22.9	-	56	20	34	-39	16	12	46	-	14	72	2.81	-1.2	9	9.2	w. nw.	23	nw.	9	9	7	4.7	15.2	7	1	
Concord ¹	289	4	45	29.57	-	-	22.6	-2	53	23	34	-37	16	11	50	-	14	71	1.57	-1.3	10	7.6	nw.	34	s.	28	2	5	21	7.9	9.7	T	0
Burlington ²	403	11	48	29.42	-	-	20.6	+1.2	50	23	29	-26	16	12	37	-	14	72	1.11	-.5	12	12.0	s.	40	sw.	28	8	9	11	5.5	20.5	6.2	0
Northfield ¹	876	12	60	28.90	-	-	18.2	+1.8	55	23	30	-39	16	7	46	-	21	77	1.70	-.6	16	8.1	w. sw.	27	s.	10	4	7	17	7.3	25.0	6.2	0
Boston ¹	124	33	62	29.77	-	-	30.6	-	63	23	39	-14	15	22	28	-	21	73	2.23	-2.1	10	13.6	w. nw.	50	nw.	15	19	2	7	3.5	12.5	2.0	0
Nantucket ¹	12	10	63	29.91	-	-	31.2	+5	53	22	38	-5	15	25	26	-	25	68	3.76	+4	12	13.1	sw.	35	nw.	27	10	9	9	5.4	3.2	0	0
Block Island ¹	26	11	46	29.91	-	-	31.6	+1.2	53	11	38	-6	15	25	24	-	23	84	1.93	-1.7	11	9.6	w. nw.	40	sw.	28	11	7	10	5.1	3.2	0	0
Providence ²	159	46	60	29.76	-	-	31.4	+2.4	60	20	40	-14	15	23	29	-	20	72	1.61	-2.0	8	10.6	nw.	35	sw.	28	9	11	9	5.4	8.5	0	0
Hartford ¹	159	5	44	29.76	-	-	27.9	-	60	23	37	-24	16	19	42	-	20	69	2.02	-1.8	11	9.6	n. s.	27	sw.	28	9	10	9	5.1	2.4	0	0
New Haven ¹	107	74	153	29.84	-	-	31.1	+2.1	57	21	30	-9	15	24	30	-	22	75	2.42	-1.6	10	9.3	s.	28	9	10	9	5.1	2.4	0	0		
Middle Atlantic States							35.5	+2.4									66	1.68	-1.5												5.5		
Albany ¹	97	26	40	29.82	-	-	24.0	+2.6	56	23	33	-22	15	15	34	-	16	73	1.55	-1.5	12	11.7	s. w.	39	w.	8	4	11	13	6.8	5.1	.4	0
Binghamton	671	57	79	28.98	-	-	26.8	+2.8	63	23	36	-14	15	17	35	-	19	71	2.67	-.7	12	7.4	w. nw.	22	w.	1	11	7	10	5.4	8.4	1.1	0
New York	314	415	24	29.62	-	-	34.1	+2.8	61	24	42	-8	15	26	26	-	21	81	1.67	-2.2	10	18.6	nw.	8	12	9	7	4.7	3.9	0	0		
Harrisburg ¹	374	30	49	-	-	-	33.5	+3.3	70	23	42	2	15	25	25	-	22	61	1.42	-1.5	7	9.1	w. nw.	26	nw.	1	7	9	12	4.6	T	0	
Philadelphia ²	114	174	367	29.87	-	-	34.1	+2.2	67	23	43	3	15	25	37	-	24	67	1.89	-1.4	10	10.4	w. nw.	37	nw.	14	4	14	10	5.9	1.0	.0	
Reading	323	47	206	29.63	-	-	33.6	+3.1	65	23	42	0	15	26	35	-	71	73	1.73	-1.7	9	13.4	w. nw.	44	s.	6	10	6	12	6.1	8.0	T	0
Scranton	805	72	104	29.07	-	-	28.4	+1.1	63	23	37	-15	15	20	31	-	25	68	2.32	-2.0	10	8.1	w. nw.	25	nw.	8	12	11	11	6.1	5.0	T	0
Atlantic City	52	37	172	29.94	-	-	36.0	+2.4	56	19	43	6	15	29	29	-	22	63	1.28	-2.0	6	10.3	nw.	31	s.	28	8	13	7	5.2	1.2	0	0
Trenton ¹	190	89	107	29.78	-	-	33.8	+3.1	63	23	42	-2	15	26	34	-	22	70	2.02	-2.3	7	11.1	sw.	34	sw.	7	11	7	10	5.2	2.1	0	0
Baltimore ²	123	100	215	29.88	-	-	38.8	+3.4	70	20	47	6	15	31	33	-	24	63	2.08	-1.3	7	11.1	sw.	27	nw.	8	10	10	5.6	.7	0	3	
Washington ¹	112	56	100	29.90	-	-	38.8	+3.5	71	23	46	6	15	30	35	-	25	62	2.02	-1.2	9	8.6	s. nw.	27	nw.	8	10	10	5.6	.7	0	0	
Cape Henry ¹	18	8	54	30.02	-	-	43.0	+1.8	76	24	52	14	15	34	33	-	30	65	1.56	-1.7	6	13.3	s. nw.	45	nw.	27	12	6	10	5.2	1.0	0	0
Lynchburg ¹	868	144	184	29.30	-	-	41.4	+1.1	74	23	52	8	15	31	38	-	26	60	2.04	-1.1	9	8.9	w. nw.	34	nw.	8	12	6	10	4.9	.4	0	0
Norfolk ²	91	80	125	29.96	-	-	44.6	+1.9	75	24	54	13	15	35	35	-	31	70	1.81	-1.4	9	11.2	sw.	29	w.	13	10	7	11	5.2	.2	0	1
Richmond ²	144	11	52	29.87	-	-	42.2	+2.6	74	24	53	9	15	31	41	-	26	58	1.93	-1.2	8	9.8	sw.	29	sw.	26	10	9	9	5.1	T	0	0
South Atlantic States				48.7	+0.9											66	1.18	-2.5												4.1			
Asheville	2,253	89	101	27.69	-	-	40.0	+1.5	70	10	52	5	15	28	36	-	27	66	2.12	-1.0	8	9.5	nw.	30	nw.	6	12	8	8	4.8	2.2	0	0
Charlotte ²	779	63	86	29.24	-	-	46.8	+2.9	77	24	58	12	15	36	33	-	30	61	1.23	-3.0	4	9.2	sw.	31	sw.	6	11	10	7	4.4	T	0	1
Greensboro ¹	886	6	56	29.12	-	-	42.2	-	75	24	55	6	15	29	40	-	28	66	2.48	-4	9.6	sw.	30	nw.	26	12	6	10	5.0	T	0	0	
Hatters ¹	11	5	30	30.07	-	-	46.8	-6	70	24	54	19	15	39	28	-	39	79	1.30	-2.7	6	14.6	w. sw.	43	nw.	27	11	10	7	4.8	0	0	0
Raleigh ¹	376	27	69	29.67	-	-	45.4	+3.2	75	24	57	12	15	34	34	-	28	56	2.27	-2.7	4	11.3	w. nw.	42	nw.	13	12	7	9	4.5	T	0	0
Wilmington ¹	72	73	107	30.03	-	-	49.2	+1.3	74	24	59	16	15	39	31	-	37	70	0.69	-2.6	3	10.7	sw.	38	sw.	11	16	5	7	3.8	0	0	0
Charleston ²	45	11	92	30.08	-	-	50.9	-1.5	75	24	60	18	15	42	27	-	38	72	6.44	-2.													

CLIMATOLOGICAL DATA FOR WEATHER BUREAU STATIONS—Continued

District and station	Elevation of instruments		Pressure		Temperature of the air						Precipitation			Wind			Average cloudiness, tenths		Total snowfall															
	Barometer above sea level	Thermometer above ground	Anemometer above ground	Station reduced to mean of 24 hours	Sea level, reduced to mean of 24 hours	Departure from normal	Mean maximum	Maximum	Date	Mean maximum	Minimum	Date	Mean minimum	Greatest daily range	Mean wet thermometer	Mean temperature of the dew point	Mean relative humidity	Maximum velocity	Miles per hour	Direction	Date													
	ft.	ft.	ft.	in.	in.	in.	°F.	°F.	°F.	°F.	°F.	°F.	%	in.	in.	miles			Clear days	Cloudy days														
Ohio Valley and Tennessee							36.9	+1.7							72	1.80	-1.6			0-10	In.	In.												
Chattanooga ¹	762	21	54	29.30			43.2	+1.0	73	24	56	9	15	31	42	32	68	2.03	-2.0	7	8.7	s.	36	nw.	6	10	9	5.0	T	.0	2			
Knoxville ¹	995	66	84	29.04			42.1	+2	73	23	54	10	15	30	41	29	64	8.83	+3	8	10.2	sw.	41	w.	6	11	12	5	4.4	T	.0	1		
Memphis ¹	399	78	86	29.70			46.4	+2.1	72	23	57	16	15	36	37	35	70	7.2	-3.6	6	10.4	sw.	25	nw.	26	11	10	7	4.6	T	.0	3		
Nashville ¹	546	5	72	29.52			43.2		71	23	54	11	14	32	40	31	66	1.88	-2.2	9	10.4	sw.	37	nw.	26	10	9	9	5.1	5.0	.0	2		
Lexington ¹	989	6		29.00			37.0	+1.6	69	23	49	2	15	25	36			1.98	-1.6	12	s.					9	10	9	5.3	2.3	.0	1		
Louisville ¹	525	106	120	29.50			39.2	+2.0	68	23	49	4	14	29	36	26	65	1.27	-2.3	4	11.2	sw.	32	w.	6	12	6	10	4.8	.7	.0	2		
Evansville ¹	431	5	38	29.61			37.9	+3.0	67	23	50	0	16	26	39	27	69	0.90	-2.2	6	10.3	s.	35	w.	6	12	9	7	4.1	1.0	.0	3		
Indianapolis ¹	522	194	230	29.13			31.7	+6	66	9	43	-7	16	20	39	24	80	0.1	-1.7	6	13.7	sw.	38	w.	6	14	3	11	4.6	2.1	.0	2		
Terre Haute ¹	575	68	149	29.44			36.0		66	9	47	0	14	25	39	25	74	0.78	-1.9	6	12.0	sw.	35	w.	10	15	4	9	4.2	4.0	.0	2		
Cincinnati ¹	627	11	51	29.36			35.6	+2.8	67	23	46	2	14	25	34	26	72	1.76	-1.2	10	10.0	sw.	25	sw.	6	11	6	11	5.4	.8	.0	1		
Columbus ¹	822	90	110	29.13			33.0	+2.3	64	23	42	0	15	24	31	24	76	1.48	-1.2	9	12.9	sw.	44	sw.	6	5	10	13	6.4	1.1	.0	2		
Dayton ¹	900	186	213	29.04			34.1	+2.7	65	23	44	1	15	25	33	24	81	0.97	-7	10	12.7	w.	42	sw.	6	10	5	13	5.7	.6	.0	1		
Elkins ¹	1,947	61	78	27.94			31.9	+3	67	23	42	-4	15	21	38	24	76	2.12	-1.0	15	8.3	sw.	29	sw.	6	4	5	19	7.4	11.9	T	.1	1	
Parkersburg	637	77	84	29.35			36.0	+1.8	69	23	46	4	15	26	39	26	70	1.57	-1.6	12	7.8	sw.	26	nw.	7	7	9	12	5.8	2.4	.0	1		
Pittsburgh ¹	842	39	54	29.08			31.6	+1	66	23	41	-5	15	22	31	22	71	1.72	-9	14	14.0	w.	36	nw.	1	4	9	15	7.1	5.8	.0	0		
Lower Lake Region							26.9	+2.2							80	1.71	-0.7														7.0			
Buffalo ¹	768	243	280	29.07			25.8	+1.5	58	23	34	-16	15	18	31	20	78	2.30	-6	20	20.8	sw.	60	sw.	7	4	7	17	7.1	17.7	2.0	0		
Canton	448	10	61	29.37			19.5	+5.5	52	23	29	-31	15	10	41	16	86	2.61	+3	16	11.1	w.	37	sw.	1	4	4	20	7.8	13.1	3.5	0		
Ithaca	836	77	100				27.2	+2.7	60	23	36	-14	15	18	29		71	0.98	-1.0	15	11.6	w.	33	nw.	15	2	7	19	7.9	12.2	2.8	0		
Oswego	335	71	85	29.53			25.9	+2.0	54	23	34	-17	15	18	30	19	80	1.49	-8	11	14.0	sw.	49	sw.	27	6	8	14	6.3	9.7	2.6	1		
Rochester ¹	523	5	69	29.33			26.4	+3.5	59	23	35	-14	15	18	30	20	80	0.05	-6	19	14.6	w.	41	s.	1	4	6	18	7.4	17.6	3.7	0		
Syracuse ¹	596	5	51	29.23			25.6	+2.7	60	23	35	-17	15	16	34	20	82	2.59	-1	21	13.1	sw.	43	sw.	1	3	2	23	8.5	19.3	1.7	0		
Erie ¹	714	57	81	29.18			28.4	+1.5	62	23	36	-9	15	20	30	22	86	1.25	-1.3	13	11.1	w.	30	w.	7	5	6	17	7.0	7.1	1.0	0		
Cleveland ¹	762	27	54	29.14			29.0	+2.7	61	23	38	-2	15	20	35	22	78	2.50	-1	16	14.5	sw.	42	sw.	6	5	5	18	7.1	11.7	2.4	1		
Sandusky	629	5	67				30.1	+2.7	61	23	39	2	15	21	30	22	81	0.96	-1.1	13	12.2	sw.	32	sw.	6	8	10	9	5.1	1.4	T	2		
Toledo ¹	628	79	87	29.29			28.5	+1.2	60	23	38	0	15	19	32	22	82	1.01	-1.6	9	12.3	w.	35	w.	6	9	8	11	5.7	2.3	T	2		
Fort Wayne ¹	857	69	84	29.06			28.3	+1.7	59	23	38	-2	15	18	36	22	77	1.34	-8	10	12.5	bw.	31	w.	10	11	10	7	4.9	2.9	0	0		
Detroit ¹	730	5	78	29.15			28.0	+3.2	60	23	36	-3	15	20	29	21	78	1.52	-7	12	13.4	sw.	34	sw.	7	7	14	6.6	2.7	T	2			
Upper Lake Region							21.4	+3.2							80	1.12	-0.6														6.0			
Alpena	609	5	89	29.20			21.7	+3.7	53	19	31	-18	15	12	40		16	82	1.59	-1	12	13.6	nw.	35	se.	10	5	6	17	6.9	12.0	7.7	2	
Escanaba ¹	612	51	72	29.23			18.3	+2.9	52	20	28	-12	15	8	33	13	80	0.83	-7	12	12.4	sw.	34	nw.	13	10	10	5.4	3.8	3.7	1			
Grand Rapids ¹	707	70	244	29.18			27.4	+3.7	55	19	35	3	14	20	30	19	80	1.49	-8	11	14.0	sw.	49	sw.	27	6	8	14	6.3	9.7	2.6	1		
Lansing ¹	878	5	90	28.99			25.6	+2.7	56	23	34	-2	14	17	35	19	80	1.43	-5	10	11.2	sw.	26	w.	6	7	6	15	6.5	8.1	1.9	0		
Marquette	734	44	73	29.08			19.8	+3.5	54	19	28	-8	14	12	42	13	75	1.11	-8	12	9.8	sw.	26	sw.	13	4	9	15	7.4	9.0	0.0	0		
Sault Sainte Marie ¹	614	11	43	29.20			16.4	+5.0	41	19	25	-25	15	8	39	12	85	1.40	0	15	13.0	sw.	35	sw.	7	4	7	17	7.2	11.2	1	0		
Chicago ¹	673	19	131	29.25			27.8	+2.9	59	19	37	-3	14	18	39	20	77	1.34	-8	10	12.5	bw.	31	w.	10	11	10	7	4.9	2.9	0	0		
Green Bay	617	109	141	29.26			19.7	+2.3	45	22	29	-13	15	10	32	15	81	0.60	-1.0	7	11.8	sw.	32	sw.	3	14	7	7	4.8	3.1	2.9	1		
Milwaukee ¹	681	33	66	29.22			23.1	+1.9	53	22	32	-8	14	16	36	16	74	0.76	-1.1	5	15.													

CLIMATOLOGICAL DATA FOR WEATHER BUREAU STATIONS—Continued

District and station	Elevation of instruments		Pressure		Temperature of the air						Precipitation		Wind			Cloudy days		Average cloudiness, tenths		Total snowfall															
	Barometer above sea level	Thermometer above ground	Anemometer above ground	Aneometer above ground	Station, reduced to mean of 24 hours	Sea level, reduced to mean of 24 hours	Mean maximum + mean min. + 2	Departure from normal	Maximum	Date	Mean maximum	Minimum	Date	Mean minimum	Greatest daily range	Mean wet thermometer	Mean temperature of the dew-point point	Total	Departure from normal	Days with 0.01 inch, or more	Miles per hour	Direction	Clear days	Cloudy days	Snow, sleet, and ice on ground at end of month	Number of days with thunderstorms									
	Ft.	Ft.	Ft.	In.	In.	In.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	%	In.	In.	Mile	Direction	Date	In.	In.	In.	In.											
Middle Slope							41.6	+7.5								0.53	-0.4				0-10 4.0	In.	In.												
Denver ¹	5,292	106	113	24.74			40.5	+9.8	66	8	53	10	9	25	42		15	43	.10	-4	3	8.4	s.	32	nw.	11	16	8	4	3.6	1.0	.0	0		
Pueblo ¹	5,690	5	30	25.30			40.3	+8.2	72	7	57	6	10	24	52		19	50	.46	.0	5	9.9	w.	42	w.	22	12	13	3	4.1	6.0	.0	0		
Concordia	1,392	50	55	28.55			37.5	+7.7	70	22	49	10	10	26	37		24	64	.68	-2	3	8.6	w.	29	nw.	12	14	9	5	4.3	T	.0	0		
Dodge City ¹	2,509	10	80	27.43			41.1	+7.9	75	8	57	9	10	26	48		23	56	.24	-5	2	15.9	sw.	42	nw.	10	12	10	6	4.5	.5	.0	1		
Wichita ¹	1,358	6	64	28.62			40.4	+6.0	71	19	53	11	16	22	48		26	62	.67	-6	3	14.9	s.	43	s.	22	14	8	6	4.0	.1	.0	1		
Oklahoma City ¹	1,214	10	47	28.80			46.6	+7.0	78	9	59	17	10	35	47		28	52	.89	-2	2	10.2	s.	24	nw.	10	17	10	1	3.1	T	.0	2		
Tulsa	674	10	61	29.37			44.9	+5.8	73	20	57	16	16	33	40		28	56	.70	-8	2	12.7	s.	33	sw.	9	11	14	3	4.2	.0	.0	1		
Southern Slope							51.6	+5.6								47	0.03	-0.7											3.6						
Abilene ²	1,738	10	50	28.28			53.8	+6.6	87	9	68	25	16	40	40		31	51	.06	-1.0	1	10.5	s.	30	sw.	9	12	10	6	4.1	T	.0	0		
Amarillo ²	3,670	10	49	26.31			44.0	+5.9	77	7	60	14	16	28	50		20	42	T	-7	0	16.0	w.	6	sw.	9	17	8	3	3.1	.0	.0	0		
Del Rio	900	63	71	29.06			60.2	+4.2	88	24	73	20	11	47	39		40	54	.05	-5	3	8.7	s.	35	nw.	10	13	5	10	4.2	.0	.0	0		
Roswell	3,506	75	85	26.45			48.2	+5.7	80	22	65	18	11	32	50		22	40	.00	-6	0	8.7	s.	42	w.	9	16	8	4	3.1	.0	.0	0		
Southern Plateau							52.7	+3.7								43	0.17	-0.4											3.1						
El Paso ¹	3,778	82	101	26.26			51.2	+2.6	77	21	66	18	11	36	42		23	34	.00	-4	0	10.8	n.	42	nw.	10	16	10	2	2.8	.0	.0	0		
Albuquerque ¹	5,314	5	45	24.80			43.6	+3.1	68	8	57	20	10	30	38		22	45	.26	-1	2	9.7	n.	44	nw.	9	15	10	3	3.3	T	.0	1		
Flagstaff	5,907	10	59																																
Phoenix ²	1,107	39	57	28.89			59.4	+4.3	87	20	74	33	11	45	40		34	50	.07	-7	1	5.0	e.	26	sw.	1	15	7	0	3.8	.0	.0	1		
Tucson ¹	2,555	5	23	27.42			58.7	+5.9	80	20	73	27	10	43	44		30	40	.39	-6	4	8.9	se.	30	sw.	7	12	6	10	5.1	.3	.0	0		
Yuma	142	9	54	29.91			62.6	+4.0	87	16	77	40	10	48	37		35	41	T	-4	0	6.2	n.	24	w.	8	17	9	2	2.6	.0	.0	0		
Independence	1,957	5	20	26.07			46.6	+4.4	72	14	60	23	10	33	39		26	47	.31	-5	2	4.1	n.					14	9	5	2.4	.0	.0	0	
Middle Plateau							37.4	+4.0								65	0.75	-0.3														5.1			
Reno ¹	4,527	61	76	25.55			39.8	+3.5	68	19	55	18	1	25	45		27	65	.56	-6	6	5.6	w.	38	s.	7	10	7	11	5.5	6.3	T	.1		
Tonopah	6,090	9	20	24.10			39.0	+4.4	62	15	48	10	9	30	29		25	61	.61	+2	5	se.	30	sw.	1	17	5	6	3.1	.0	.0	0			
Winnebucca	4,339	5	56	25.72			39.2	+5.7	66	19	51	11	1	28	36		29	70	.62	-3	7	8.9	ne.	30	sw.	7	12	6	10	5.1	5.8		.0	0	
Modena	5,473	10	46				34.2	+3.2	61	16	47	-1	10	21	40		26	60	.64	-4	7	8.1	w.	31	s.	8	11	10	7	4.2	4.1	.0	.0	0	
Salt Lake City ¹	4,227	32	46	25.74			33.6	+1.5	59	7	42	8	10	25	25		28	78	1.70	-5	6	7.5	se.	41	nw.	4	5	7	16	6.8	13.6	.0	1		
Grand Junction	4,602	60	68	25.49			38.8	+5.9	62	21	51	10	10	26	37		21	51	.42	-2	8	6.0	s.	24	sw.	8	13	7	8	4.0	1.4	.0	0	0	
Northern Plateau							34.5	+2.7								78	0.72	-0.7													6.7				
Baker ²	3,471	36	54	26.56			32.2	+3.2	53	20	41	10	9	23	29		26	84	.49	-7	7	6.0	se.	24	sw.	6	5	12	11	6.1	8.5	.0	0	0	
Boise ¹	2,739	5	49	27.31			35.9	+5.8	58	20	45	14	3	27	29		29	75	.88	-6	4	8.5	se.	33	nw.	4	7	9	12	5.8	8.2	.0	0	0	
Pocatello ¹	4,478	5	31	25.58			31.0	+4.1	51	19	40	9	10	22	27		24	77	.96	-2	7	9.6	sw.	34	sw.	7	8	5	15	6.3	8.2	.0	0	0	
Spokane ¹	1,929	27	42	28.10			33.2	+1.9	52	27	41	9	1	26	32		28	82	1.15	-6	11	5.4	ne.	25	s.	4	5	5	18	7.4	9.0	.0	0	0	
Walla Walla	991	57	65	29.12			38.8	+1.7	57	28	44	17	1	33	21		27	75	-1.0	8	3	8.4	w.	26	sw.	4	5	3	20	7.7	7.2	.0	0	0	
Yakima	1,076	58	67	29.02			37.2	+2.7	60	28	45	13	1	30	33		29	74	.07	-9	3	4.6	nw.	21	w.	2	6	6	16	6.9	T	.0	0	0	
North Pacific Coast Region							45.0	+3.5								76	3.39	-2.0											6.1						
North Head	211	5	56	29.86			46.8	+3.8	68	14	52	31	8	42	22		40	78	5.89	-1.6	14	13.8	e.	59	s.	10	9	4	15	6.3	1.2	.0	0	0	
Seattle ²	125	90	321	29.97			45.2	+2.4	62	17	51	33	9	39	24		39	81	2.02	-1.9	10	8.8	n.	42	sw.	1	7	8	13	6.3	5.5	T	.0	0	
Tacoma	194	172	201	29.90			43.4	+2.8	63	17	49	30	15	38	23		26	60	-2.1	13	8.2	n.	34	sw.	1	7	10	11	6.1	T	.0	0	0		
Tatoosh Island	86	9	61	29.98			44.5	+3																											

SEVERE LOCAL STORMS, FEBRUARY 1943

[Compiled by Mary O. Souder]

[The table herewith contains such data as has been received concerning severe local storms that occurred during the month. A revised list of tornadoes will appear in the United States Meteorological Yearbook.]

Place	Date	Time	Width of path, yards	Loss of life	Value of property destroyed	Character of storm	Remarks
Minnesota, extreme southwestern counties.	9-10	-----	-----	-----	\$5,000	Glaze, sleet, snow, and wind.	Many wires down. Ice remained on wires in some localities for 48 hours, the heaviest ice formation being in the vicinities of Lakes Benton and Hendricks, near the South Dakota border. Highways and roads blocked by snow drifts and trains into Minneapolis 7 hours late. In Minneapolis and St. Paul hundreds of accidents occurred because of icy walks and streets, with many motor accidents reported.
South Dakota, northeastern portion.	10	All day-----	-----	-----	20,000	High wind and snow	Light to moderate snow, accompanied by lower temperatures and high winds slowed transportation, causing interruption of business, with damage to telephone company alone, \$20,000.
Perkins County, S. Dak.	19-22	-----	-----	-----	100,000	Flood-----	Both forks of Grand River, especially near Shadhill area, flooded after week end of unseasonable warmth, in which ice broke and jammed causing damage to farms, farm machinery, buildings and highway bridges, and killed considerable stock.
Washington, D. C., and vicinity.	26	8:44-10:07 p. m.	-----	-----	-----	Snow with thunder and lightning.	This storm considered unusual, the kind one might see once or twice in a lifetime.

LATE STORM REPORT FOR JANUARY 1943

Utah, western portion	20-23	-----	-----	\$42,310	Wind-----	Damage mostly structural and centered in portions of western Salt Lake and eastern Tooele Counties.
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SOLAR RADIATION AND SUNSPOT DATA FOR FEBRUARY 1943

[Solar Radiation Investigations Section, I. F. HAND in charge]

SOLAR RADIATION OBSERVATIONS

Explanations of the tables and references to descriptions of instruments, stations and methods of observation, and to summaries of data, are given in the January 1942 REVIEW, page 20; a list of pyrheliometric stations is also given in the REVIEW for January 1943, page 12.

TABLE 1.—*Solar radiation intensities during February 1943*

[Gram-calories per minute per square centimeter of normal surface]

MADISON, WIS.

Date	Sun's zenith distance										1:30 p. m.
	7:30 a. m.	78.7°	75.7°	70.7°	60.0°	0.0°	60.0°	70.7°	75.7°	78.7°	
	75th mer. time	Air mass									
e.	5.0	4.0	3.0	2.0	*1.0	2.0	3.0	4.0	5.0	e.	mm.
Feb. 1.....	0.86	0.72	0.88	0.99	1.58	1.14	1.24	1.39	1.41	1.22	3.48
2.....	1.37	.61	.84	1.02	1.25	1.52	-----	-----	1.36	1.20	5.38
3.....	3.81	-----	-----	-----	1.34	-----	-----	-----	-----	-----	-----
8.....	1.37	.76	1.01	1.30	1.59	1.26	-----	-----	-----	-----	2.74
9.....	2.74	.33	.42	.61	-----	-----	-----	-----	-----	-----	3.30
11.....	.69	.68	.87	1.07	1.18	1.48	1.34	-----	1.20	1.01	.90
17.....	1.60	.76	.90	1.07	1.30	-----	-----	1.27	1.18	1.01	.73
18.....	1.85	.50	.71	.83	1.04	1.30	1.04	1.18	1.01	.88	4.78
19.....	4.37	.49	.59	.73	.92	1.19	.84	-----	-----	-----	6.55
20.....	4.98	-----	-----	.92	1.11	-----	-----	1.27	1.34	1.16	4.78
22.....	4.37	-----	-----	1.01	1.21	1.50	-----	-----	1.31	1.16	.98
24.....	3.15	-----	-----	1.37	-----	-----	-----	1.20	1.16	1.03	2.06
Means.....	.63	.74	.91	1.15	1.45	1.12	(1.14)	-----	1.30	1.11	.94
Departures.....	-.27	-.30	-.26	-.20	-.10	-.20	-.03	-----	-.05	-.11	-.12

LINCOLN, NEBR.

Feb. 1.....	1.60	-----	-----	-----	1.24	1.11	0.99	0.88	3.15
2.....	2.36	0.83	0.98	1.11	1.20	-----	-----	-----	3.63
4.....	3.63	.92	1.05	1.16	1.34	1.36	1.18	-----	3.81

*Extrapolated.

TABLE 1.—*Solar radiation intensities during February 1943—Con.*
LINCOLN, NEBR.—Continued

Date	Sun's zenith distance										Local mean solar time
	7:30 a. m.	78.7°	75.7°	70.7°	60.0°	0.0°	60.0°	70.7°	75.7°	78.7°	
	75th mer. time	Air mass									
e.	5.0	4.0	3.0	2.0	*1.0	2.0	3.0	4.0	5.0	e.	mm.
6.....	3.15	cal.	cal.	cal.	cal.	cal.	cal.	cal.	cal.	cal.	3.48
7.....	3.63	.99	1.11	1.24	1.39	1.41	1.22	1.07	1.07	1.07	5.38
8.....	3.81	.73	.83	.99	1.22	1.36	1.20	.75	.75	.75	2.74
16.....	1.60	.94	1.07	1.20	1.34	1.20	1.01	.90	.90	.90	3.30
17.....	3.30	.83	.94	1.03	1.27	1.18	1.01	.88	.88	.88	4.78
18.....	2.87	.60	.70	.84	1.18	1.18	1.01	.88	.88	.88	6.55
19.....	4.78	.35	.49	.68	.94	1.19	1.16	1.03	1.03	1.03	4.57
20.....	4.19	-----	-----	-----	1.27	1.34	1.31	1.16	1.16	1.16	3.99
21.....	3.30	-----	-----	-----	1.20	1.27	1.31	1.16	1.16	1.16	2.6
24.....	3.30	.87	1.00	1.11	1.29	1.34	1.16	1.03	1.03	1.03	3.63
26.....	1.52	1.02	1.13	1.21	1.40	1.31	1.24	1.09	1.09	1.09	2.06
27.....	3.15	.94	1.05	1.16	1.31	1.24	1.09	.96	.96	.96	2.06
Means.....	.....	.82	.94	1.08	1.26	1.30	1.11	.94	.94	.94	2.6
Departures.....	.....	-.09	-.08	-.08	-.10	-.05	-.11	-.07	-.07	-.07	2.6

BLUE HILL, MASS.

Feb. 1.....	6.0	-----	-----	-----	-----	1.22	1.02	0.89	0.71	4.8
2.....	2.6	0.86	0.95	1.07	1.26	-----	-----	-----	-----	2.6
3.....	1.8	.99	1.11	1.24	1.40	-----	-----	-----	-----	2.4
5.....	6.3	.79	.92	1.04	1.31	1.33	1.31	1.06	1.06	4.2
9.....	2.6	-----	-----	-----	-----	1.31	1.06	1.06	1.06	2.2
14.....	2.9	-----	-----	-----	-----	1.19	1.01	1.01	1.01	2.0
15.....	.2	-----	-----	-----	-----	1.41	1.29	1.19	1.09	.3
16.....	.4	1.01	1.12	1.24	1.40	1.31	1.10	.96	.84	.6
18.....	1.6	.86	.99	1.11	1.33	1.31	1.10	.88	.88	2.0
20.....	4.8	.56	.69	.83	.97	1.14	1.01	.88	.88	7.1
25.....	2.6	.95	1.04	1.18	1.36	1.31	1.10	1.00	1.00	2.6
Means.....	.....	.86	.97	1.11	1.26	1.29	1.10	.98	.98	.....
Departures.....	.....	-.07	-.08	-.08	-.04	+.01	-.05	-.04	-.04	.....

TABLE 2.—*Daily totals and weekly means of solar radiation (direct+diffuse) received on a horizontal surface*

[Gram-calories per square centimeter]

Date	Washington	Madison	Lincoln	East Lansing	New York	Columbus	Fairbanks	Nashville	Twin Falls	New Orleans	Riverside	Blue Hill	Ithaca	Newport	State College	Put-in-Bay	East Wareham	Davis, Calif.	
Jan. 29	101	34	80	159	217	101	14	77	111	212	176	143	183	135	198	130	77	41	
30	73	139	203	106	31		22	74	127	501	191	98	94	190	91	45	158	138	
31	146	72	310	103	287	44	6	261	295	481	220	192	145	240	181	50	140	352	
Feb. 1	335	271	268	194	251		4	310	283	498	359	106	245	143	205	194	90	128	
2	300	271	235	250	241		283	7	316	121	275	211	293	188	307	163	195	291	
3	150	42	241	40	182		50	11	50	271	235	306	242	290	127	32	304	211	
4	32	227	295	126	20	224	43	172	79	508	343	34	90	26	123	204	29	72	
Mean	162	151	233	140	176	140	15	180	184	412	248	168	170	191	153	122	156	148	
Departure	-40	-32	+19		+6		-25	+8	-7	+157	+9	-44	+6	-17	+49				
5	142	169	176	272	250	202	55	56	292	493	346	285	296	266	250	315	288	217	
6	69	223	318	44	27	51	74	323	217	485	365	35	21	33	16	39	44	344	
7	151	304	310	109	128	294	74	333	220	449	365	154	31	265	129	34	246	200	
8	352	294	272	306	217	344	60	346	207	372	199	261	139	244	204	346	280	241	
9	253	116	22	178	260	121	63	65	324	477	402	320	277	336	314	125	303	381	
10	142	141	200	51	71	28	62	82	238	437	399	206	127	206	114	59	244	363	
11	89	324	201	218	19	119	6	362	295	350	394	30	41	38	82	139	74	381	
Mean	171	225	227	168	139	174	56	224	256	438	353	184	133	198	168	151	211	304	
Departure	-41	+24	-24		-34		-5	+48	+56	+192	+69	-36	-42	-12	+55				
12	330	260	188	258	320	223	7	144	282	229	370	328	199	342	247	268	316	371	
13	84	343	138	202	4	200	10	119	262	376	397	123	137	86	107	200	109	386	
14	327	358	348	383	274	348	0	373	354	154	398	332	218	333	214	381	328	393	
15	393	309	286	251	404	251	0	135	328	409	377	296	406	342	255	372	387		
16	325	308	375	274	310	340	6	319	367	408	391	310	378	212	286	371	277		
17	257	322	350	390	151	165	15	320	334	469	401	164	176	166	312	115	388		
18	406	318	344	342	344	299	11	284	336	325	370	377	278	370	376	365	375	269	
Mean	303	317	290	300	258	261	7	242	325	311	393	299	229	297	238	296	284	353	
Departure	+74	+91	+30		+61		-65	+26	+62	+54	+85	+56	+42	+31	+24				
19	376	292	325	312	242	287	13	192	336	481	326	267	260	241	296	314	233	354	
20	296	290	347	214	256	100	7	228	346	526	210	296	151	312	262	123	312	260	
21	310	355	368	368	254		0	206	145	96	159	326	328	267	400	298	72		
22	283	323	287	309	205		7	370	72	188	323	366	314	218	372	323	164		
23	330	87	56	270	238	214	2	275	118	182	255	174	271	318	210	282	259		
24	116	265	218	154	128	37	0	90	144	226	130	15	104	97	55	111	249		
25	286	326	191	388	301	207	0	368	380	302	327	371	378	278	354	371	137		
Mean	285	277	256	288	232	169	4	247	221	220	275	238	270	251	261	279	214		
Departure	+20	+22	-29		+4		-89	+4	-35		-91	+4	+14	+6	+75				

ACCUMULATED DEPARTURES ON FEB. 25, 1943

POSITIONS, AREAS, AND COUNTS OF SUNSPOTS FOR FEBRUARY 1943

POSITIONS, AREAS, AND COUNTS OF SUNSPOTS FOR FEBRUARY 1943—Continued

[Communicated by Capt. J. F. Hellweg, U. S. N. (Ret.), Superintendent, U. S. Naval Observatory.] All measurements and spot counts were made at the Naval Observatory from plates taken at the observatories indicated. Difference in longitude is measured from the central meridian, positive toward the west. Latitude is positive toward the north. Arcs are corrected for foreshortening and expressed in millions of Sun's hemisphere. For each day, under longitude, latitude, area of spot or group, and spot count, are included assumed longitude of center of the disk, assumed latitude of center of the disk, total area of spots and groups, and total spot count.

Date	Eastern standard time	Mount Wilson group No.	Heliographic					Observatory	Heliographic					Area of spot or group	Spot count	Plate quality	Observatory			
			Difference in longitude	Longitude	Latitude	Distance from center of disk	Plate quality		Difference in longitude	Longitude	Latitude	Distance from center of disk								
1943 Feb. 1	h m 11 51	7544	° -33	23	-5	32	73	8	G	U. S. Naval.	6... 10 48	7548	-80	271	+11	80	12	F	Mt. Wilson.	
			(56)	(-6)			73	8			7547	-18	333	+6	23	24	6			
											7544	+30	21	-4	30	24	4			
														(351)	(-6)	60	12			
																12	2			
2	10 52	7544	-21	23	-5	21	73	10	F	Do.	8... 10 37	7551	-45	280	-3	46	97	6	F	U. S. Naval.
		7545	+1	45	+9	15	48	5			7544	+61	26	-4	61	24	3			
			(44)	(-6)			121	15							(325)	(-6)	121	9		
3	11 1	7544	-8	24	-4	6	48	5	F	Do.	9... 10 40	7551	-31	281	-2	32	73	10	VG	Do.
		7545	+16	46	+8	22	24	2			7550	-28	284	+8	32	436	38			
			(30)	(-6)			72	7			7549	+39	351	-4	40	12	1			
															(312)	(-7)	521	49		
4	11 2	7546	-45	28	-3	46	36	1	P	Mt. Wilson.	10... 11 45	7551	-17	281	-2	18	48	2	G	Do.
		7545	+28	45	+9	32	24	2			7550	-11	281	+7	23	485	20			
			(17)	(-6)			60	3							(298)	(-7)	921	23		
5	11 1	7544	+18	22	-4	19	36	2	P	Do.	11... 14 49	7550	-2	281	+7	16	436	15	F	Do.
			(4)	(-6)			36	2			7551	-1	282	-2	5	48	1			
											7550	+4	287	+5	13	388	1			
															(283)	(-7)	872	17		

POSITIONS, AREAS, AND COUNTS OF SUNSPOTS FOR FEBRUARY 1943—Continued

Date	Eastern standard time	Mount Wilson group No.	Heliographic				Area of spot or group	Spot count	Plate quality	Observatory
			Difference in longitude	Longitude	Latitude	Distance from center of disk				
1943 Feb. 12..	h m 3	7550 7551 7550 (272)	o +9 +11 +16 (-7)	o 281 283 288 908	o +8 -2 +5 21	18 13 20 1	412 48 428 1	16 4 1	F	U. S. Naval.
13..	16 31	7550 7551 7550 (256)	+25 +27 +32 (-7)	281 283 288 794	+8 -2 +5 15	30 28 33 1	388 18 388 1	13 1 1	F	Do.
14..	11 12	7552 7550 7550 7550 (245)	-55 +33 +38 +43 (-7)	190 278 283 288 727	-6 +8 +7 +5 14	55 37 41 45 1	48 194 97 388 1	1 8 4 1 1	F	Do.
15..	10 37	(*) 7550 7550 7550 7550 (233)	-70 +47 +51 +57 (-7)	163 280 284 290 739	-5 +8 +7 +5 13	70 50 53 58 1	6 145 194 388 6 1	2 3 6 1 1	F	Do.
16..	10 42	7550 7550 7550 (219)	+58 +63 +70 (-7)	277 282 289 581	+8 +8 +5 6	80 64 71 1	97 145 339 1	3 2 1 6	P	Do.
17..	11 26	7554 7550 7550 7550 (206)	-71 +72 +76 +85 (-7)	135 278 282 291 491	+9 +8 +8 +5 1	72 73 77 85 1	6 97 97 291 1	1 3 2 1 7	F	Do.
18..	10 54	7554 (193)	-57 (-7)	136 97	+9 58	58 97	97 6	6 F	Do.	
19..	10 55	7554 7554 (180)	-43 -39 (-7)	137 141 96	+8 +8 8	45 41 8	48 48 8	1 7 8	G	Do.
20..	11 10	7555 7554 7554 (*) (166)	-73 -30 -27 -20 (-7)	93 136 139 146 472	+10 +8 +9 +9 23	74 34 32 26 13	339 73 48 12 13	13 7 1 2 23	VG	Do.
21..	10 32	7555 7555 7554 7554 7556 (154)	-61 -51 -18 -14 +3 (-7)	93 103 136 140 157 865	+10 +9 +9 +9 +6 38	64 53 24 22 13 8	727 48 24 18 48 8	21 2 4 3 3 8	G	Do.
22..	10 53	7555 7555 7554 7556 (140)	-46 -37 -2 +17 (-7)	94 103 138 157 994	+10 +10 +8 +6 65	49 41 15 22 65	776 97 48 73 65	30 12 10 13 65	VG	Do.
23..	10 49	7555 7555 7555 7556 (127)	-35 -28 -23 +31 (-7)	92 99 104 158 994	+10 +10 +9 +7 64	39 33 28 35 64	339 485 73 97 64	18 8 12 16 64	G	Do.
24..	10 58	7555 7555 7555 7556 (114)	-22 -14 -9 +45 (-7)	92 100 105 159 1090	+10 +9 +9 +8 62	27 22 18 48 62	436 436 73 242 62	30 12 9 11 62	G	Do.
25..	11 31	7555 7555 7555 7555 7556 (100)	-56 -8 0 +4 +13 +59 (-7)	44 92 100 104 113 159 1125	-14 +11 +10 +9 +7 +8 56	56 20 18 17 21 61 56	12 20 18 48 48 242 56	2 22 15 5 12 9 56	G	Do.
26..	10 58	7555 7555 7555 7556 (87)	+7 +14 +27 +72 +78 (-7)	94 101 114 159 165 1550	+11 +10 +7 +6 +8 67	20 23 30 73 79 67	339 921 48 48 194 67	32 20 9 1 67	VG	Mt. Wilson.
27..	10 34	7555 7555 7557 (75)	+20 +27 +41 (-7)	95 102 116 1551	+11 +11 +7 38	27 32 44 38	388 1115 48 38	19 13 6 38	VG	U. S. Naval.

POSITIONS, AREAS, AND COUNTS OF SUNSPOTS FOR FEBRUARY 1943—Continued

Date	Eastern standard time	Mount Wilson group No.	Heliographic				Area of spot or group	Spot count	Plate quality	Observatory
			Difference in longitude	Longitude	Latitude	Distance from center of disk				
1943 Feb. 28..	h m 8	(*) 7555 7555 7557 (61)	o +12 +34 +41 +56 (-7)	o 73 95 102 117 1	o -7 +11 +11 +7 1	12 38 45 45 58 1	12 38 45 45 58 1	5 25 16 48 5 1	VG	U.S.Naval.

Mean daily area for 28 days = 627

(*) Not numbered.

VG = very good; G = good; F = fair; P = poor.

PROVISIONAL RELATIVE SUNSPOT NUMBERS FOR NOVEMBER 1942

[Based on observations at Zurich, except those at Locarno as indicated by an asterisk.
Data furnished through the courtesy of Prof. W. Brunner, Eidgen. Sternwarte,
Zurich, Switzerland]

November 1942	Relative numbers	November 1942	Relative numbers	November 1942	Relative numbers
1.....	54	11.....	a 22	21.....	*Ecd 33
2.....	ab 61	12.....	21	22.....	31
3.....	49	13.....	*26	23.....	d 48
4.....	40	14.....	*28	24.....	a 39
5.....	28	15.....	*23	25.....	37
6.....	*36	16.....	8	26.....	*41
7.....	31	17.....	0	27.....	*52
8.....	*30	18.....	0	28.....	*b 36
9.....	Mc 22	19.....	0	29.....	*Mac 63
10.....	25	20.....	*8	30.....	*d 73

Mean, 30 days = 32.2

PROVISIONAL RELATIVE SUNSPOT NUMBERS FOR DECEMBER 1942

1.....	61	11.....	29	21.....	7
2.....	57	12.....	25	22.....	*Mc 18
3.....	*46	13.....	*a 20	23.....	27
4.....	35	14.....	25	14.....	
5.....	15	.....	25	.....
6.....	Ecd 15	16.....	15	26.....	
7.....	31	17.....	.....	27.....	*12
8.....	31	18.....	8	28.....	11
9.....	26	19.....	7	29.....	a 11
10.....	a 31	20.....	0?	30.....	11

Mean, 26 days = 22.9

PROVISIONAL RELATIVE SUNSPOT NUMBERS FOR JANUARY 1943

1.....	8	11.....	*14	21.....	d 25
2.....	8	12.....	a -	22.....	25
3.....	8	13.....	12	23.....	15
4.....	*8	14.....	9	24.....	Mc 25
5.....	*0	15.....	0	25.....	27
6.....	*d 15	16.....	0	26.....	10
7.....	*10	17.....	11	27.....	8
8.....	14	18.....	Ec 19	28.....	
9.....	12	19.....	26	29.....	7
10.....	*17	20.....	21	30.....	0

Mean, 29 days = 12.5

* = Observed at Locarno.

a = Passage of an average-sized group through the central meridian.

b = Passage of a large group through the central meridian.

c = New formation of a group developing into a middle-sized or large center of activity;
E, on the eastern part of the Sun's disk; W, on the western part; M, in the central-circle zone.

d = Entrance of a large or average-sized center of activity on the east limb.

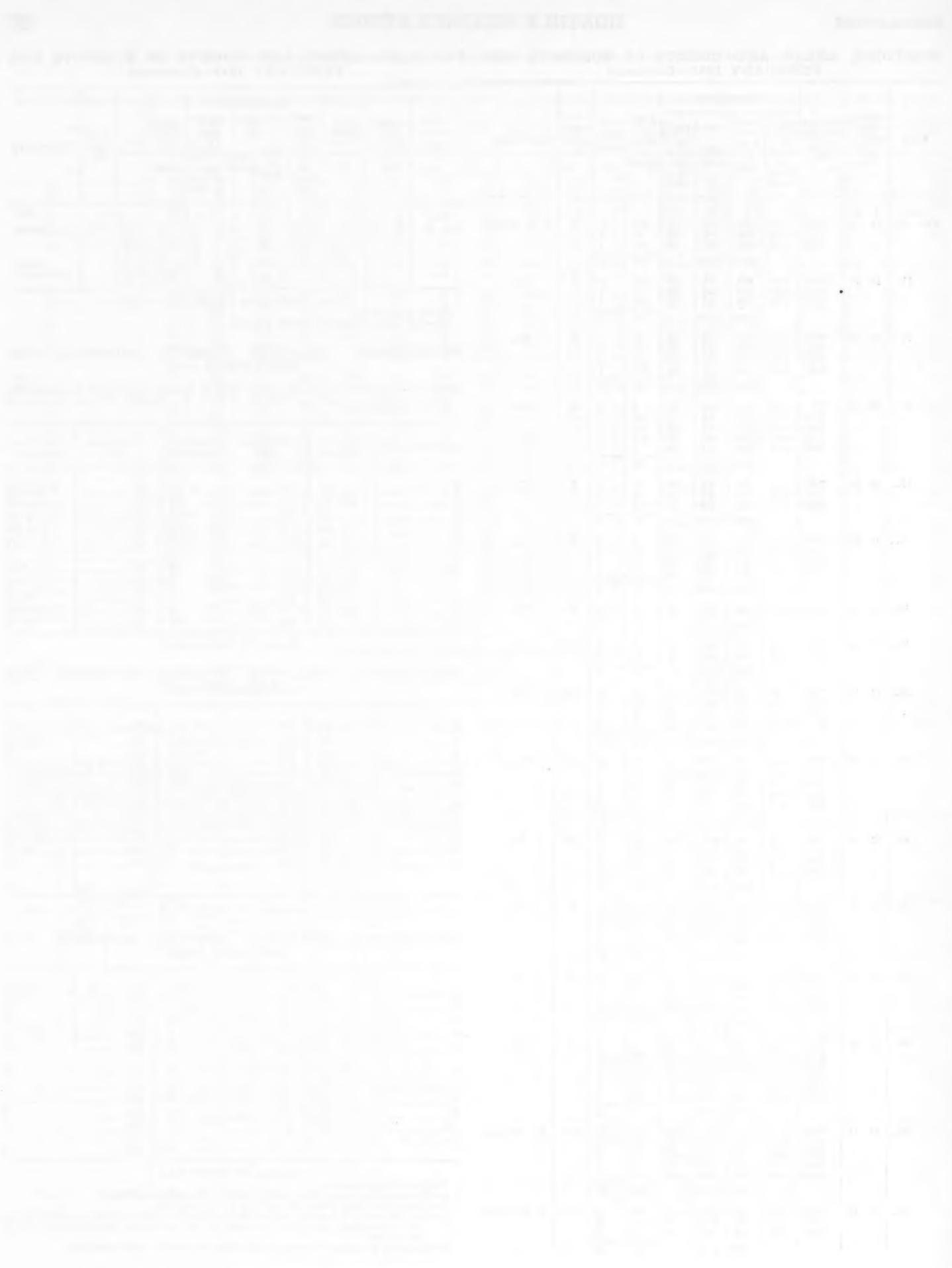


Chart I. Departure ($^{\circ}\text{F}.$) of the Mean Temperature from the Normal, and Wind Roses for Selected Stations, February 1943

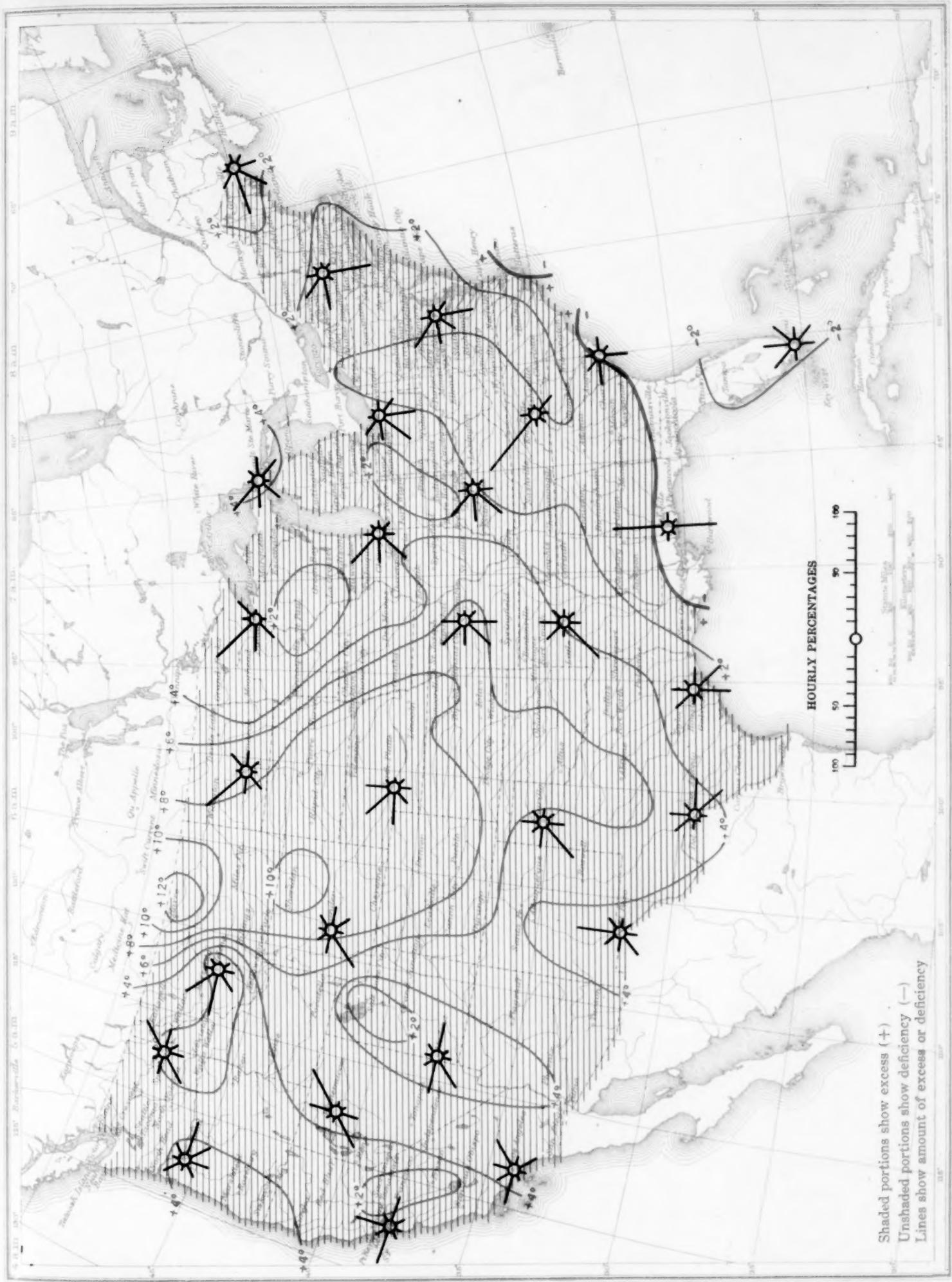
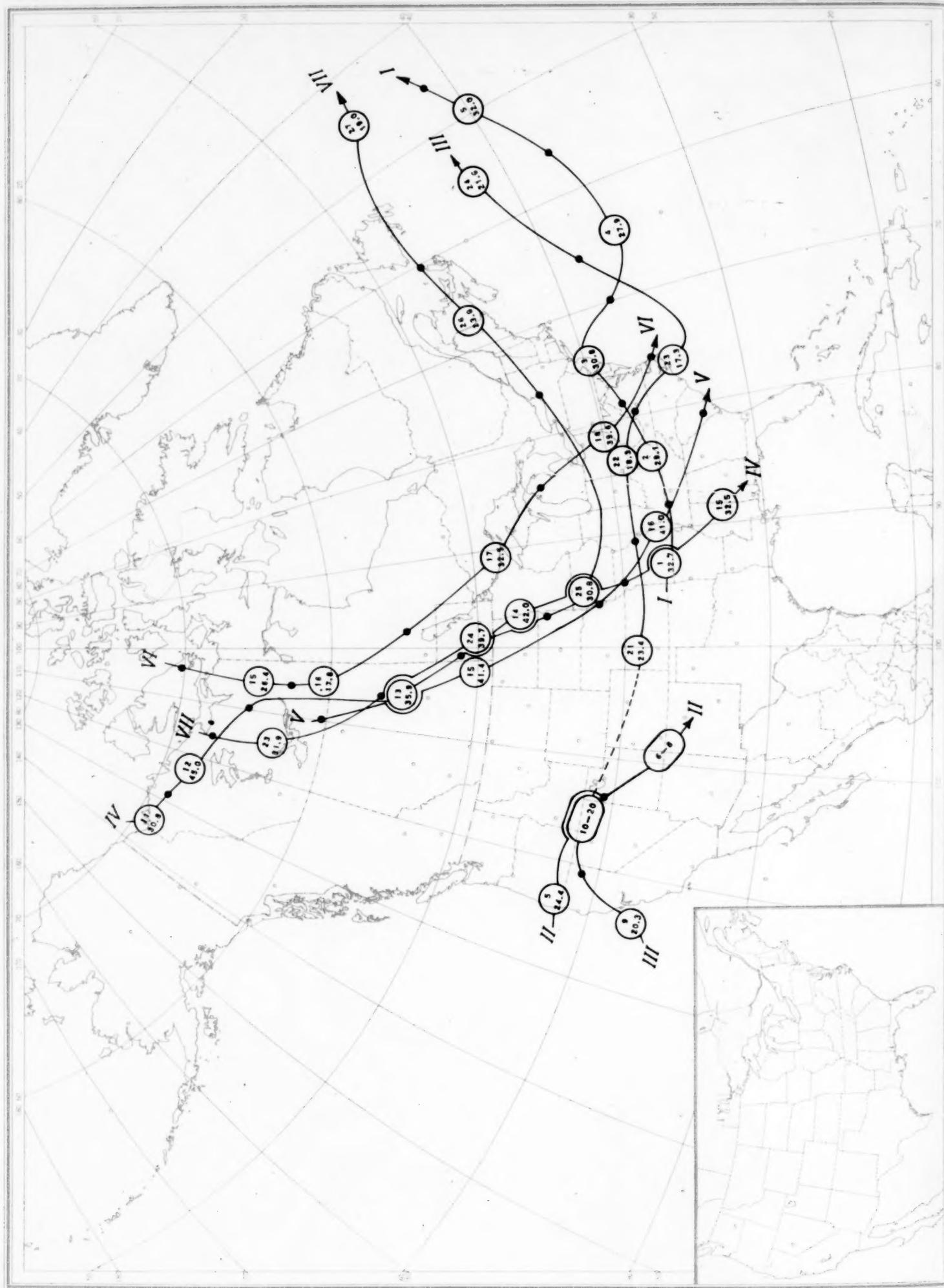


Chart II. Tracks of Centers of Anticyclones, February 1943.



Circle indicates position of anticyclone at 7:30 a. m. (75th meridian time), with barometric reading. Dot indicates position of anticyclone at 7:30 p. m. (75th meridian time)

Chart III. Tracks of Centers of Cyclones, February 1943.

Circle indicates position of anticyclone at 7:30 a. m. (76th meridian time), with barometric reading. Dot indicates position of cyclone at 7:30 p. m. (76th meridian time)

Chart III. Tracks of Centers of Cyclones, February 1943.

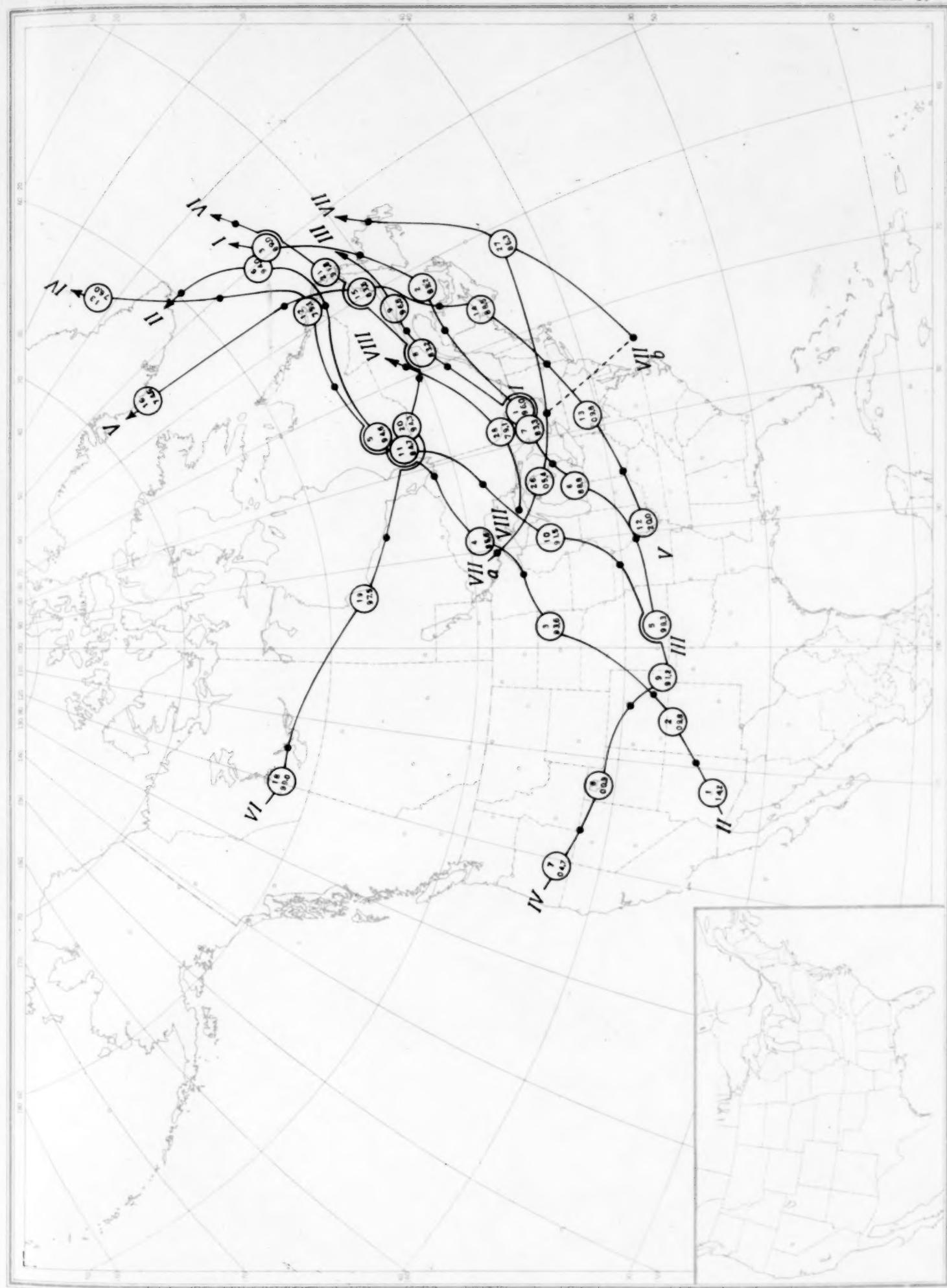


Chart IV. Percentage of Clear Sky Between Sunrise and Sunset, February 1943

LXXI-11

February 1943. M. W. R.

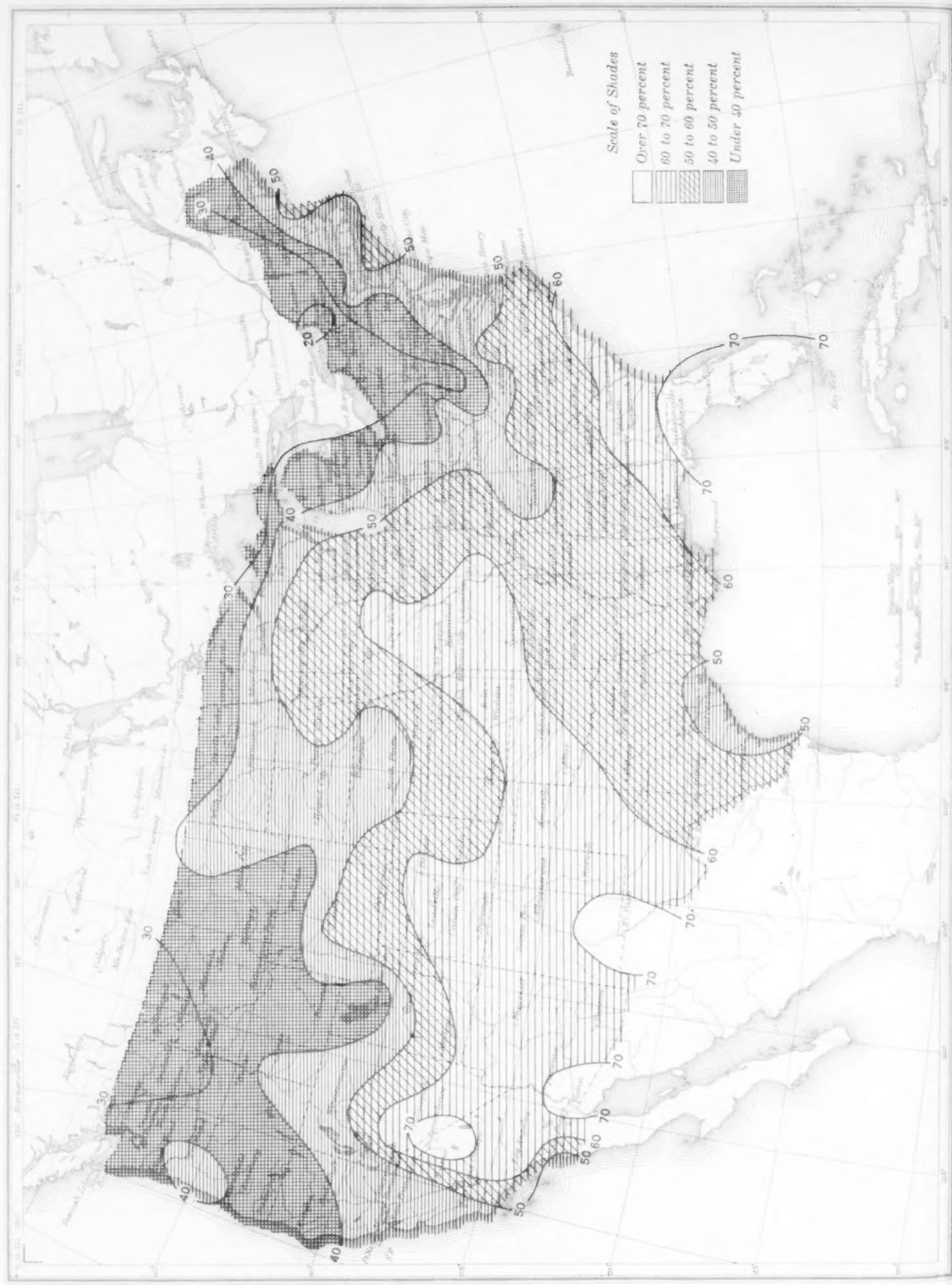


Chart V. Total Precipitation, Inches, February 1943. (Inset) Departure of Precipitation from Normal

Chart V. Total Precipitation, Inches, February 1943. (Inset) Departure of Precipitation from Normal

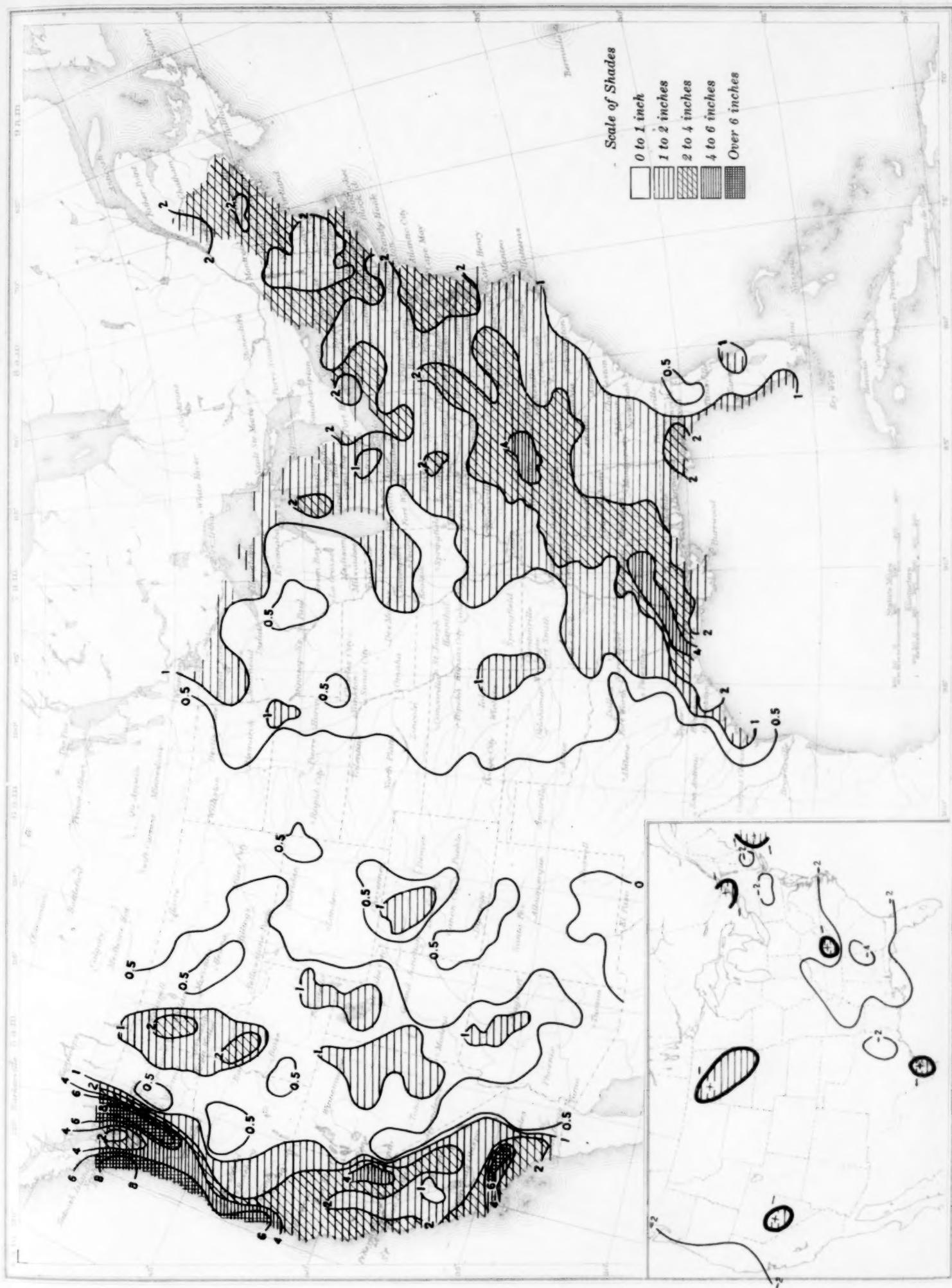


Chart VI. Isotherms at Surface; Prevailing Winds, February 1943

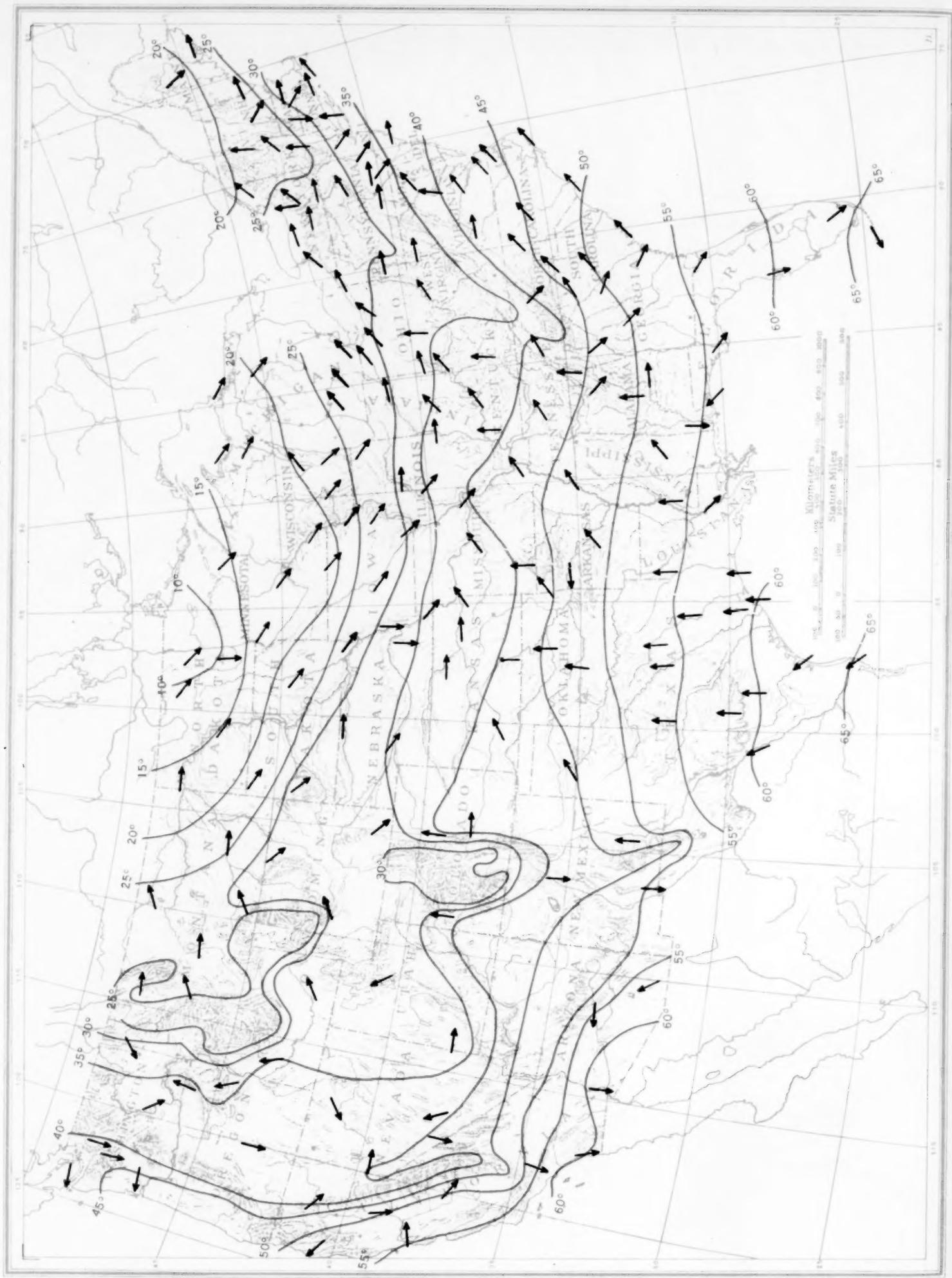


Chart VII. Total Snowfall, Inches, February 1943. (Inset) Depth of Snow on the Ground at 7:30 p.m., Monday, March 1, 1943

Chart VII. Total Snowfall, Inches, February 1943. (Inset) Depth of Snow on the Ground at 7:30 p.m., Monday, March 1, 1943

